

SRTS SIDEWALKS ADVISORY COMMITTEE TREE WALK OF FEBRUARY 9, 2014

Documentation Revision II, of 4-6-14, including Revision I, of 3-3-14

This documentation of what was learned on the SRTS Sidewalks Advisory Committee tree walk of February 9, 2014 has been prepared by Dick Pratt (DP) and modified (also by DP) on the basis of Kenilworth Avenue comments by Alison Pierce (AP), a detailed answer to a tree-specific question by Arboretum Committee Chair Keith Mayhew (KM), a detailed comprehensive review by tree-walk guide and Town Arborist Phil Normandy (PN), additional input from Kathy Hedge (KH), and a review of Revision I by John Mulligan (JM).

The 3-3-14 revision (Revision I) provided a vetted interpretation of the advice provided by Phil Normandy along with other knowledgeable statements made during the walk. It also included afterthoughts and related comments. Authorship is not indicated for changes made to the original draft on the basis of clarifications not involving different perspectives. Initials do identify, however, afterthoughts and related comments that reflect either different viewpoints or evolving (or strongly confirming) thoughts. This 4-6-14 revision (Revision II) adds the comments by John Mulligan, not yet vetted, and it is assumed there may also be discussion at the 4-7-14 SRTS Sidewalks Advisory Committee meeting which should be reflected in the final version.

There are three general points of information obtained from Phil Normandy on the walk that have broad application. They concern tree age (older versus newer trees), root bridging and the handling of red maples:

Tree Age: JM: Retrofitting sidewalks is more of a problem for older trees than newer trees. The roots of older trees are established and have stopped growing so sidewalk installers need to avoid cutting older tree roots. If you cut the roots on these older trees, this will invite disease and wind throw. The good news is that an established solution to this problem is root bridging, which is described below. Younger trees may not need root bridging because the roots can adapt to the sidewalk placement. Root bridging needs to be a part of the sidewalk design and Phil will work with the project to identify where root bridging is needed.

Root Bridging. In all instances where Phil advises that tree root bridging or tree protection should be provided, he is not referring to the type of bridging where there is actual daylight (space) between the roots and the sidewalk structure, as with an arched wood-decked bridging. Instead, he is referring to placement of protective materials between the roots and the poured concrete of the sidewalk. This involves first removing any old asphalt from among the tree roots using hand excavation. Then a layer of gravel is placed. In the process used by the Town along Kenilworth Avenue south of the Waverly Triangle, the gravel is then covered by a proprietary root protection matting which not only protects but allows the tree to breathe. The matting used along Kenilworth at sensitive spots is actually laid by the matting vendor, not the contractor. In the snowfall occurring during the Advisory Committee tree walk, the "bridged" areas could actually be seen freezing before adjacent conventional sections of sidewalk, even though the full length presented a uniform concrete surface. In this documentation, the term "bridging" is used to denote a requirement for particularly substantial root protection, whereas "root protection" is used to imply more basic application of bridging.

Red Maples. Many of the trees along the proposed sidewalk alignments are red maples. Phil identifies the red maple as being a "soft" tree, less desirable than most other species found in Garrett Park street tree plantings. Accordingly, he suggests in several instances that existing red maples be removed to 1) allow optimal sidewalk placement, 2) avoid root protection expenses, and/or 3) allow replanting of more desirable street tree varieties. At the same time, Phil is also obviously aware of the importance of adjacent property owner desires as well as overall citizen preferences. Thus the inference is that it would be appropriate to make each individual red maple protection versus replacement decision on the basis of 1) sidewalk placement considerations, 2) site-specific root protection costs, 3) size and condition of the red maple in question 4) desirability of introducing a better street tree variety, 5) adjacent homeowner preferences, and 6) overall public opinion.

The tree by tree notes which follow are not in the order they were encountered on the tree walk of February 9, 2014. They are in alphabetical order of major street section (three sections in all) and in numerical order of house number. (Selected homeowner names provided for additional identification in the first draft have been removed, but could be added back in on a comprehensive basis with Town Office assistance.)

CLERMONT AND MONTROSE AVENUES

10902 Clermont

Existing concrete sidewalk in this area.

(DP: The most northerly two or three squares of concrete sidewalk may need to be removed and replaced to maintain grade. In this case there presumably should be root protection for the adjacent large tree on private property.)

10904 Clermont [Wegner]

Protect large tulip poplar above and inside sidewalk.

10908 Clermont

Protect large Colorado blue spruce between sidewalk and street.

10908/10910 Clermont [*property line*]

Young elm (damaged by ice) is not in a vulnerable location.

(PN: It will likely be replaced.)

10910 Clermont

The large tulip poplar above and inside sidewalk at this location is a candidate for removal. It is not in great health and not a variety of tree that the town needs to go to extraordinary measures to protect. The Town Arborist and the property owner agree on the intention that it be superseded by the American Elms already in place close by.

10912 Clermont

Young elm on south side is not in a vulnerable location.

10914 Clermont

Young elm on south side requires special protection given its location. Properly done, there should be no risk given the young age of the tree.

10914/10916 Clermont [*property line*]

Tulip poplar almost certainly cannot be saved. This tree is completely surrounded by pavement (existing sidewalk, two driveways, and street). The grades of the adjacent driveways, particularly the 10916 Clermont driveway, are too low to match a rebuilt ADA-compliant sidewalk with the driveway grades and at the same time accomplish a bridging of the tulip poplar roots.

(PN: We all agreed.)

10916 Clermont

No significant tree issues except tulip poplar on property line (see above).

10918 Clermont

No significant tree issues.

10918/10920 Clermont [*property line*]

Red maple, not that valuable, can be protected with bridging.

10920 Clermont

No significant tree issues.

10922 Clermont

No significant tree issues.

10924 Clermont

No significant tree issues.

10926 Clermont

Willow oak between sidewalk and street is a good tree and will require substantial bridging for protection (the topography will help).

10930 Clermont [*south side*]

Willow oak back of sidewalk is a good tree and will require bridging for protection.

10930/10934 Clermont [*property line*]

Willow oak back of sidewalk between the two driveways is a good tree and will require substantial bridging for protection. This can probably only be adequately accomplished by raising the 10930 Clermont driveway entrance (considered in the past to prevent water intrusion onto the property), and also the 10934 Clermont driveway entrance, in connection with the bridging. (In turn this may well lead to a design where the sidewalk grade is raised to match the top of the storm water catch basin in front of 10930 Clermont.)

(DP: There is a pending storm drain project, presently in abeyance, for this immediate area.)

10934 Clermont

South side tree (as distinct from the property-line tree, see above) is a willow oak between sidewalk and street, a good tree that will require substantial bridging for protection (the topography will help).

North side tree is a red maple, not that valuable, can be addressed with bridging (the topography will help).

(PN: Or could be replaced after the fact with another species; owner would not miss it.)

10938 Clermont [*Clermont Triangle*]

The tree just beyond the present west-side Clermont sidewalk terminus is an ash, which should be saved. This argues for having the crosswalk to the other (northeast) side be southeast of the ash as at present...

(DP: but with a crosswalk alignment perpendicular to the street centerline).

10933 Montrose [*Clermont Triangle*]

The large tree at the end of the present east-side Montrose sidewalk term is a red maple, not that valuable. Taking this tree out and providing a replacement will allow a best-case sidewalk design

opposite the triangle. From a street tree perspective, such action is preferable to the alternative of disturbing the ash across the street.

(DP: Recognizing that the existing top of curb is up 5" from the present asphalt sidewalk, this tree could likely be saved if desired by accepting a short section of 3-foot-wide sidewalk placed immediately behind the curb with root protection.)

(PN: Why go out of our way? This is a place where we can plant better trees after the fact.)

The large tree further to the northwest at 10933 Montrose is also a red maple. Depending on right-of-way availability, it could be bridged by a sidewalk relocated to run behind it, or the tree could be removed.

(DP: Recognizing that the existing top of curb is up 4" from the existing asphalt sidewalk, there is also the option of addressing this tree by accepting a short section of 3-foot-wide sidewalk placed immediately behind the curb with root protection. The sidewalk would remain immediately back of curb as at present, but would be level with the top of the curb.)

(PN: The decision should rest on what makes the most engineering sense; see replacement comment above.)

10935 Montrose

Red maple, not that valuable, can be addressed with bridging.

10937 Montrose

Smallish pink silverbell tree should not be a problem.

10939 Montrose

No tree.

10941 Montrose

Young magnolia should not be a problem.

Large ginkgo tree toward the tennis courts is very valuable. Provide bridging and try to have the sidewalk alignment as far from the tree as the nearby power pole location will allow.

Montrose [*Tennis Courts*]

No problem with pruning overhanging elements of the ornamental Kousa dogwood, a valuable specimen and a memorial tree, located close to the park sign.

KENILWORTH AVENUE

11002 Kenilworth

Willow oak is an important tree and needs to be addressed with root protection and a sidewalk alignment as far back behind it as possible.

(DP: The heavy landscaping in the right-of-way will need to be almost totally reworked to achieve suitable grades.)

11002/11006 Kenilworth [*near property line*]

Small volunteer trees will need to be removed, and that may be the best solution for the larger trees.

(DP: Won't the larger trees close to the street right-of-way line need root protection?)

(AP: I have sassafras and tuliptree and both marked as recommended to take down...)

(PN: because they are expendable, as is anything else at this spot)

11006 Kenilworth

Sidewalk should go as far back of red maple as possible, or since it is not that valuable, the tree could be replaced.

Young silverbell on west side can have sidewalk located within 2-1/2 feet of it.

11010 Kenilworth

Caucasian fir is a very important tree, but because of the nature of its root system is not a problem, even with a sidewalk location a good distance back of the curb. Field excavations would help during design to corroborate where roots are.

11010/11014 Kenilworth [*property line*]

Sugar maple between the street and presumed sidewalk location can be addressed with root protection, given favorable grades of the adjacent driveways, and placement as far back from tree as possible. The photinia behind it will require very substantial pruning or replacement.

(PN: Truly, the photinia could go unless a favorite, with something else replanted once location of walk is set.)

11014 Kenilworth

No significant tree issues except maple on property line (see above).

(JM: I have a note that a pine tree on the south side may have to go, but that is not an issue for the arboretum committee)

11016 Kenilworth

Pine tree on west side will require root protection. Needed elevation (pruning) is not a problem for the tree.

11018 Kenilworth

Large sugar maple presents a special challenge, with the solution dependent in part on right-of-way availability. With root bridging the sidewalk can go in back of the tree. It should be as far back as possible but not closer to exposed roots than 3 feet. Hollies in the way of a suitable back-of-tree alignment can be easily replaced and are available in reasonably large sizes. It will need to be determined if the fountain is in the right-of-way and how best to circumnavigate it.

(JM: To clarify the note above, I have a note that the [sugar] maple may have to go unless the sidewalk goes around the tree. This is where the right-of-way may be an issue.)

11022 Kenilworth

Burr oak is young and can withstand root cutting. Burr oaks are slow to establish, but will eventually get big. This young tree can be shifted forward or back at a cost of several hundred dollars, or can be removed and replaced with a new tree at a desired location, or the sidewalk can be located within 2-1/2 feet of the existing tree.

11024 Kenilworth

Same situation with a young burr oak as at 11022 Kenilworth.

(PN: It takes burr oaks a while to recover from moving but I think Dick is right that they can be and it would make walk installation easier. It would take a few hundred dollars per tree using a tree spade, but about the same cost as buying new ones. This is the recommended option.)

(KH: I had written down that the cost to move the tree would be around \$200.)

11026 Kenilworth

There was no discussion of the trees behind the parking pad retaining wall because their fate depends on parking pad decisions involving the property owner.

11028 Kenilworth [opposite Argyle]

Sidewalk can be run behind and within 3-feet of the zelkova using root protection.

11028/11100 Kenilworth [*property line*]

No significant tree issues.

OXFORD STREET

4400 Oxford

(DP: Tree-sized yew bush will need major pruning or removal if street is not shifted.)

(PN: It is most likely replaceable or not needed.)

Red maple, not that valuable, is thought not to be desired by the homeowner. The presumption is thus that it should be removed and replaced to facilitate best-case sidewalk design.

(DP: This tree and other design issues have the potential of being addressed by shifting Oxford 18 to 24 inches to the north in this area.)

(PN: I must have missed that conversation...seems costly and radical?)

4402 Oxford

No existing tree

4404 Oxford

If the crape myrtle requires trimming it will not be hurt. There is no longer any other tree here.

4406 Oxford

Medium-sized blue ash on east side is a valuable tree, but there is another elsewhere. It has grown into the wires and needs repeated pruning. If protecting it requires extraordinary measures, it is a candidate for removal.

(DP: Full protection may require a short section of 3-foot sidewalk.)

4408 Oxford

Removal of the easterly Japanese maple (at front walk) is thought to be necessary. A new planting would grow reasonably fast. (A shifting of curbs to the north in this area would require removal of the tulip poplar across the street at the corner, which is thought to be sound, despite the falling-over of two adjacent Oxford St. tulip poplars due to weak roots.)

Japanese dogwood between the two Japanese maples can be addressed with root protection.

Removal of the Japanese maple at the corner is almost certainly necessary, especially to allow proper ADA ramping at the intersection. It was noted that removal will solve near-total tree foliage blockage of street light illumination at the Keswick intersection.

(JM: I just want to note that the homeowner has approached me about the Japanese maples and is very attached to them).

10712 Keswick [*side yard*]

Young hardy rubber tree deserves to be saved and should not be a problem given the topography.

(DP: Curb radius easing and ADA ramp design at the corner may make this a bit complex).

(PN: It is young and can take some root reduction if carefully done.)

Colorado blue spruce next to house is significant and its protection should be carefully addressed.

Between 10712 Kenilworth and 4508 Oxford [*vacant lot*]

(JM: I have that there is a Japanese Snowbell that should not be a problem as it is far enough back. My notes started getting sketchy here due to the snow. I would like to confirm this view with PN at some point)

4508 Oxford

No existing tree

10707 Shelley Ct. [*side yard*]

Brush will need removal and the big tree back on private property may well need root protection.

10710 Shelley Ct. [*side yard*]

No significant tree issues.

10715 Clermont [*side yard*]

Young Nuttall oak is damaged and could be replaced, but was originally specifically requested by property owner.

(PN: This is healing well and might be a move candidate.)

Large holly can be addressed without any major concerns.

4600 Oxford

Well-loved large tulip poplar at corner of Clermont will need substantial bridging for protection as sidewalk passes between it and the street.

(DP: ADA ramp design at the corner may make this a bit complex).

Two small volunteer trees east of circular drive (one already marked with orange dot) will need to be removed.

Cornelian cherries within circular drive should not be endangered if sidewalk is close to the street in this section.

American elm at west side is extremely valuable and must receive top priority in sidewalk alignment protection strategies.

10711 Montrose [*side yard*]

The large sugar maple by the fence has stopped growing and has a short life expectancy, and can be addressed accordingly if it is in the way or costly to protect.

Red maple town trees (two on Oxford nearest Montrose), even though medium sized, are expendable and can readily be replaced if sidewalk design would be thereby enhanced.

4700 Oxford [*side yard on Montrose*]

Two katsuras trees (that have severely buckled the presently abandoned asphalt sidewalk) will need to be addressed with substantial bridging and placement of the new sidewalk right on the property line to their rear or they will need to be replaced. Arguments in favor of replacement include impending further disfiguration as power line trimming takes place plus the presence of two more trees of the same variety nearby.

(DP: Given that the 240 volt power distribution system has been "hardened" at this location using "tree wire" or equivalent, and there is no high-voltage line, why would there be future aggressive PEPCO pruning of the type associated with old 3-wire systems?)

(PN: You can't bank on that. This is a place where it's more prudent to remove and replace. They have hefty surface roots.)